"Company A"
Demonstration model – integrated contingency plan (One Plan)

Note on this demonstration model of the integrated contingency plan framework:

The following is a generic version of the integrated contingency plan (ICP, or "One Plan") developed for a small paint manufacturing facility under the One Plan Case Study project, a joint effort on the part of the Massachusetts Office of Technical Assistance (OTA) and the U.S. Environmental Protection Agency Region One office. Please note that every facility plan will have its own unique criteria, particularly those of larger or more complex operations. For example, your local emergency planning committee (LEPC) may have specific criteria for what they want to see included in your emergency response plan. **Contact your LEPC before beginning this process.** It is important for them to be involved and provide input.

This model is intended as reference only, not as a template for developing your own integrated plan. Use this model to see how the framework laid out in the federal integrated contingency plan guidance (published in the June 5, 1996 *Federal Register*) may be applied. There are many variations on how the One Plan may be written.

Names, addresses and numbers for persons and case-specific entities (hospitals, DEP regional office, etc.) have been substituted with a description of the type of information needed, given in parenthesis and in italicized monotype font.

For example, the name of the facility owner is given as *(name)*.

To ease replication, tabs, maps and figures that appear in the original plan are not provided in this generic version. Due to these changes, the page numbers for the document have changed. Every attempt has been made to revise page numbers referenced in the text. These discrepancies are the result of the changes made to the original document, and do not represent defaults in the document as it was created for the use by the model company.

Where possible and desired by the model company, process-specific information (name and/or volume of chemical, etc.) has been slightly altered. No changes have been made that affect the design of the One Plan.

Finally, a handful of changes have been made or suggestions have been added to this document since its submittal to the company, to help strengthen this model's use as a learning tool.

INTEGRATED CONTINGENCY PLAN

"COMPANY A"
123 INDUSTRY AVENUE
ANYTOWN, MASSACHUSETTS

June 1999

LAST REVISION June 28,1999

Prepared By:

Consultant A

Submitted To:	**Submitted By:**
"Company A"	**Consultant A**
(Address)	***(Address)***
(contact information)	

SECTION I – INTRODUCTION

1.0 PURPOSE AND SCOPE

1.1 Purpose

The Integrated Contingency Plan (ICP) has been developed to provide "Company A" with a single guidance for emergency preparedness and response. The purpose of this plan is three-fold:

1) To act as a guide during actual emergency situations;

2) To minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous materials to the air, soils, or surface water; and

3) To familiarize local emergency response personnel (i.e. police, fire, and rescue departments, hospital and governmental personnel, emergency medical services) with the types of material handled and internal emergency response procedures.

The provisions of this plan will be carried out immediately whenever there is a fire, explosion, or potential or actual release of hazardous materials which could threaten human health or the environment. This plan is also intended to describe the actions facility personnel must take to minimize hazards to human health or the environment in the event of fires, explosions, or any unplanned sudden or non-sudden release of hazardous wastes**. "Company A" employees will not engage in emergency response operations other than incipient fires or incidental releases of hazardous materials. In the event of an emergency, as described in this plan, all "Company A" employees will evacuate the plant buildings and report to the designated rally point. An outside emergency responder (e.g., Fire Department) will be contacted for emergency response. See the Evacuation Plan in Annex 3.**

1.2 Scope

"Company A" located at 123 Industry Avenue in Anytown, MA is a manufacturer of architectural coatings. The three main processes include the blending of materials to generate solvent and water based paints and thermoplastic (dry mixture) product lines. All manufacturing and material

storage is conducted in the main, three (3) story, brick mill building. The five utility buildings located on-site are vacant or used for ancillary purposes (see Annex 1). Within the main building, multiple flammable liquids are stored in bulk on each of the three (3) floors, including the storage of acetone, heptane, methanol, alkyds (oils), toluene, and xylene. A site plan and individual floor plans are provided in Annex 1.

Based on a review of site operations, the emergency planning regulatory obligations imposed on “Company A” include EPA's Spill Prevention Control and Countermeasure (SPCC) Planning, 40 CFR part 112; and OSHA's Emergency Action Regulations 29 CFR 1910.38 and Process Safety Management 29 CFR 1910.119. This plan has been developed to meet each of these emergency planning requirements. In addition, the plan includes elements that comply with OSHA’s Fire Protection Standard (29 CFR 1910.157) and Massachusetts Contingency Plan’s spill reporting (310 CMR 40.330 & 40.1600).

2.0 TABLE OF CONTENTS

SECTION **PAGE**

3.0 CURRENT REVISION DATE

"Company A" will review the ICP, which was originally prepared in June 1999, as provided in Annex 6. Listed below are the most current review/revision to the ICP.

REVIEW/ REVISION DATE	**PLAN UPDATED (YES/NO)**	***DESCRIPTION OF REVISION***

4.0 GENERAL FACILITY IDENTIFICATION

The following section provides key facility and personnel information.

4.1 Facility Information

Facility Name: "Company A" Company

Owner/Operator: *(name)*
(Home address)

Facility Address: "Company A" Company
123 Industry Avenue
Anytown, MA 02000

Mailing Address: "Company A" Company
123 Industry Avenue
Anytown, MA 02000

Latitude: *(degrees)(minutes)(seconds)*
Longitude: *(degrees)(minutes)(seconds)*

SIC Code: *(number)*

EPA Hazardous Waste ID# MA1234567

4.2 Key Contacts

"Company A" operates one shift five days a week between the hours of 7:00 am to 4:00 PM. There are 15 employees who work in the plant, referred to in this plan as "Plant Personnel" and 5 employees who staff the front office, referred to in this plan as "Office Personnel". Key employee contacts are as follows:

Emergency Coordinator: *(name)*
Home Address: *(address)*

Home Phone No.: *(number)*
Beeper No.: *(number)*
Facility Phone No.: *(number)*
Facility Fax No.: *(number)*

*The EC or Alternate must always be on site. If for whatever reason neither the EC or alternate can be readily reached, the response to an incident should NOT be delayed.

1st Alternate: *(name)*
Home Address: *(address)*

Home Phone No.: *(number)*
Facility Phone No.: *(number)*
Facility Fax No.: *(number)*

2nd Alternate: *(name)*
Home Address: *(address)*

Home Phone No.: *(number)*
Facility Phone No: *(number)*
Facility Fax No.: *(number)*

Note: *larger or more complex facilities may wish to list other critical management staff, such as plant maintenance, security, personnel, financial and legal.*

SECTION II - CORE PLAN

In the right hand margin of this report are tabbed dividers directing facility personnel to the sections outlining a particular emergency control procedure. Immediately following the divider are procedural flow diagrams for each of the emergencies listed above. The section that follows each diagram provides more detailed information for handling each type of emergency. Modification of these procedures can occur during the emergency, if the Emergency Coordinator or his/her alternate determines a different procedure will result in a better response to the emergency.

1.0 DISCOVERY

The Emergency Coordinator or his/her alternate will determine the proper response in accordance with the control procedures. If an employee discovers a spill, fire, or other emergency, they must contact:

1) The emergency coordinator or alternate, and
2) The front office immediately.

If not present at the incident scene, the emergency coordinator (or alternate) can be contacted through the front office buzzer system. The front office can be contacted by dialing intercom #15 on any of the in-plant phones. The locations of the phones installed on each floor of the facility are shown on Figures A3-1 – A3-3 in Annex 3.

The following information should be provided to the emergency coordinator and the front office:

a. Nature of emergency (i.e. fire or spill);
b. Location of emergency;
c. Size and extent of emergency;
d. Materials involved; and
e. Injury to personnel.

2.0 INITIAL RESPONSE

a. Upon being notified, the Emergency Coordinator or his/her alternate will assess the situation to determine the following:

- Hazards involved;
- Magnitude of the problem;
- Resources threatened; and
- Exclusion zone need or evacuation of plant required.

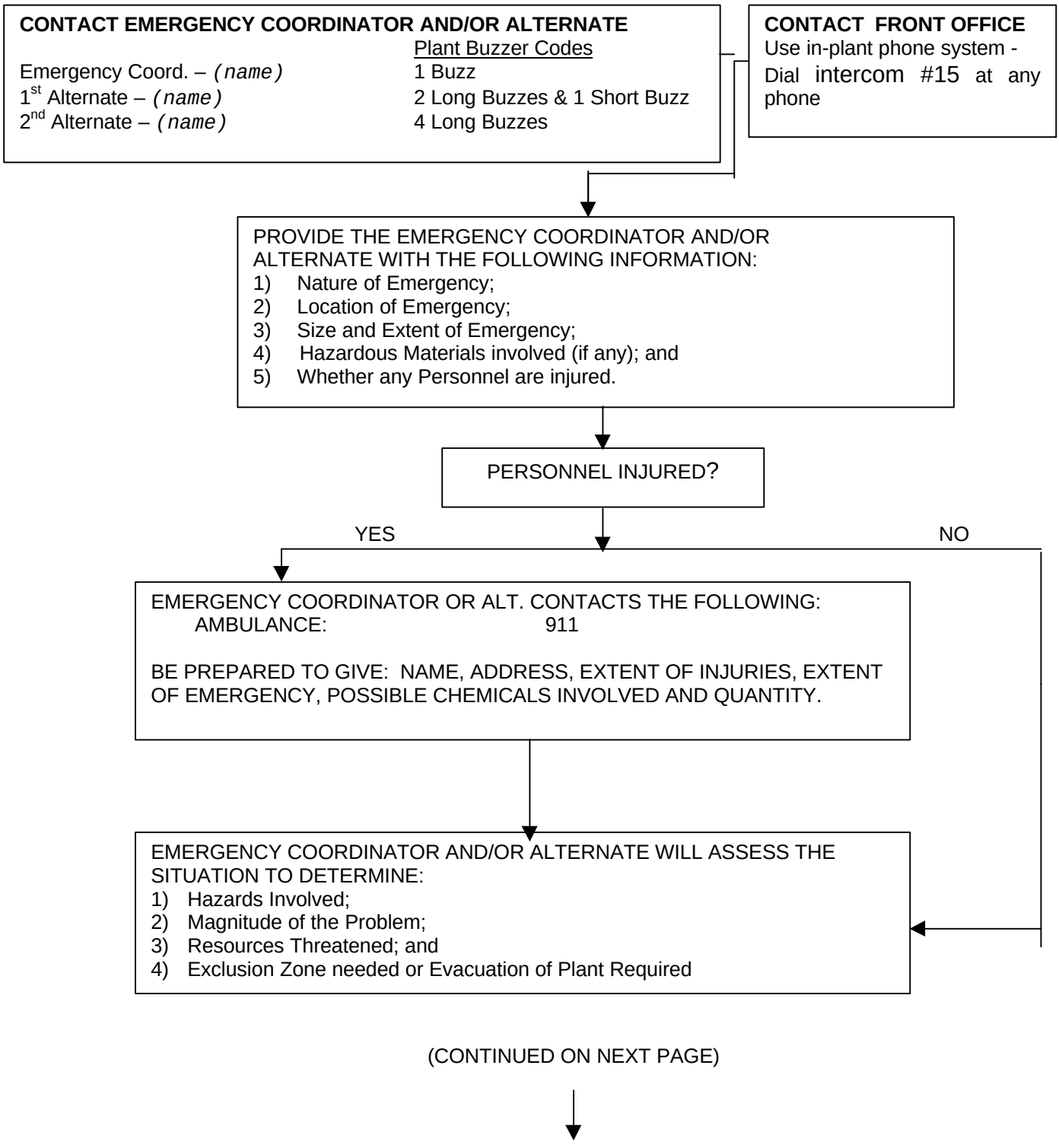
The Emergency Coordinator will then determine the action to be taken using the attached procedural flow diagram (see tabbed sections for SPILLS and FIRE and Explosion decision trees).

b. If the emergency involves the release of a hazardous material, while awaiting arrival of the Emergency Coordinator or his designee, plant personnel shall commence containment activities immediately, using all available trained manpower and materials on-hand. **All containment activities will be conducted at a safe distance from the release area and will consist of only those activities described in the employee's Hazard Communication or Spill Prevention Control & Countermeasures training**.

c. Immediate containment of the spill shall include blocking of adjacent drains, constructing dikes, etc., using all available containment materials on-hand. The location of available emergency equipment is depicted in figures A3-1 – A3-3 in Annex 3.

2.1 Procedural Flow Diagram

SPILL AND/OR RELEASE OF HAZARDOUS MATERIALS



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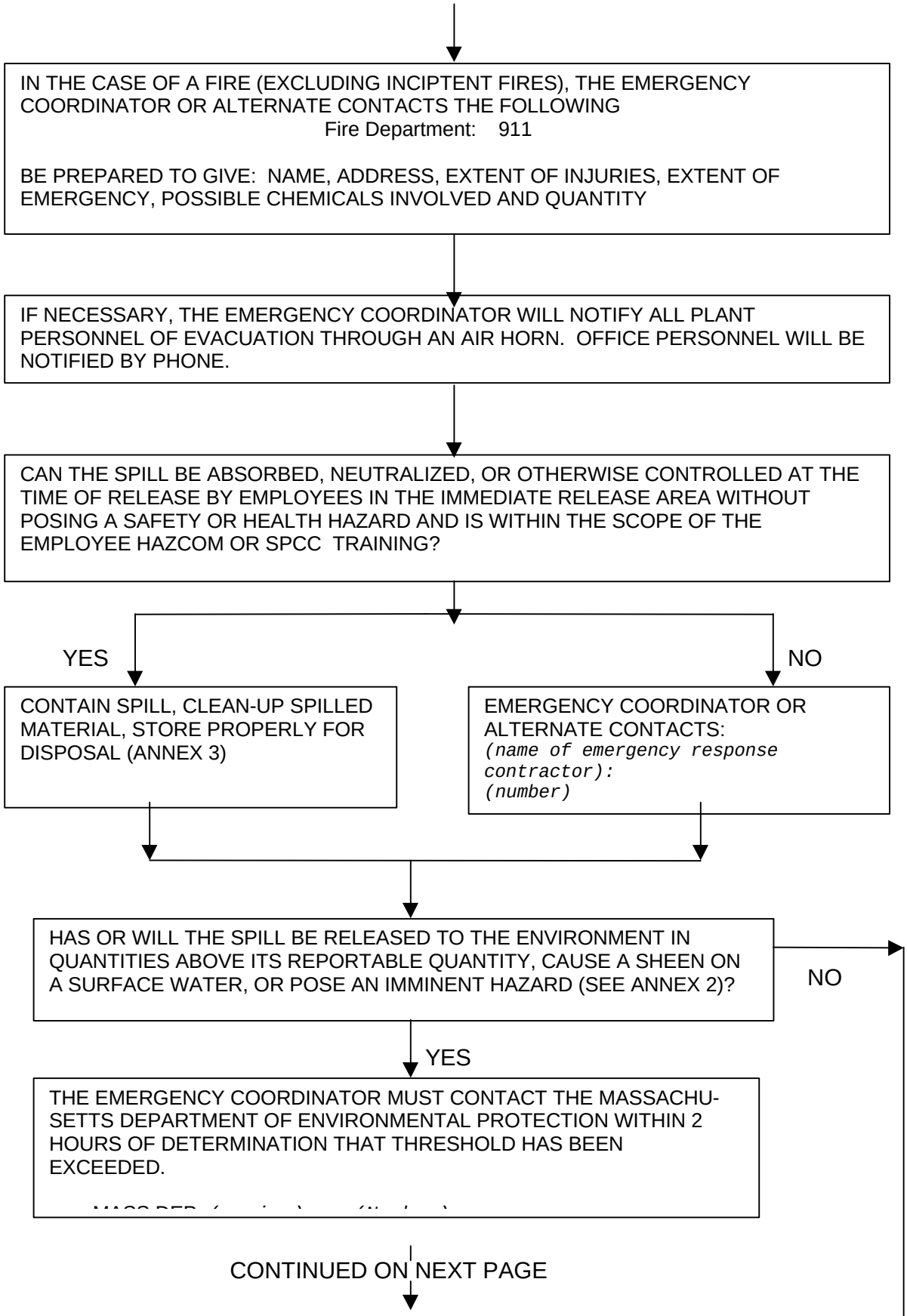

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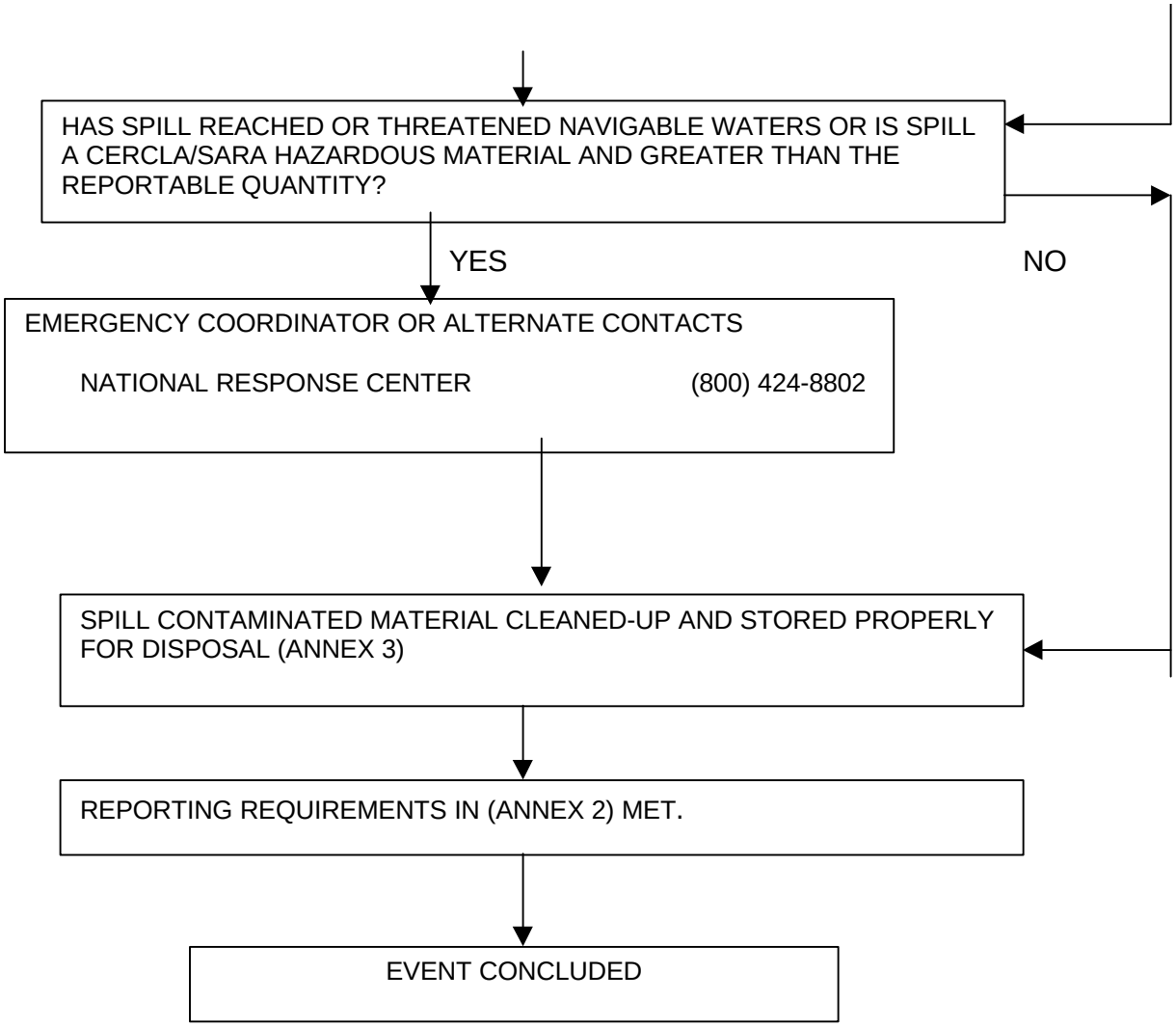

HAS SPILL REACHED OR THREATENED NAVIGABLE WATERS OR IS SPILL A CERCLA/SARA HAZARDOUS MATERIAL AND GREATER THAN THE REPORTABLE QUANTITY?
YES
NO
EMERGENCY COORDINATOR OR ALTERNATE CONTACTS
NATIONAL RESPONSE CENTER (800) 424-8802
SPILL CONTAMINATED MATERIAL CLEANED-UP AND STORED PROPERLY FOR DISPOSAL (ANNEX 3)
REPORTING REQUIREMENTS IN (ANNEX 2) MET.
EVENT CONCLUDED

A. Immediate Emergency Actions for Spills

Emergency procedures are the responsibility of the Emergency Coordinator or his designee and not the general employees of "Company A". Immediate procedures are outlined below:

1. The Emergency Coordinator must identify the character, exact source, amount, and extent of any released materials and assess possible hazards to human health or the environment.

2. If necessary, the Emergency Coordinator or his designee will evacuate all personnel within the facility using predetermined routes described in Annex 3. Plant personnel will be notified by an air horn and office personnel will be notified via in plant phone system.

3. If the Emergency Coordinator determines there is a threat to human health or to the environment outside the facility he must report his findings immediately:

   - Local authorities, especially if evacuation of local areas is advised (see procedural flow diagrams); 911.

4. If the Emergency Coordinator determines that the spill is of a reportable quantity or greater, he must report his findings immediately:

   - Massachusetts DEP's 24 hour spill reporting number: 1-888-304-1133.
   - National Response Center (telephone number: 1-800-424-8802).

   The following information must be provided to the regulatory agencies when contacted:

   - Name and telephone number of reporter;
   - Name and address of facility;
   - Time and type of incident (e.g. release, fire);
   - Name and quantity of material(s) involved, to the extent known;
   - The possible hazards to human health or the environment outside the facility;
   - The extent of injuries, if any.

5. As necessary, the Emergency Coordinator or his designee should notify the appropriate State and local regulatory agencies included in Annex 2.

B. During Emergency

For all spills or leaks, the following guidelines will be followed as closely as possible by individuals specified only by the Emergency Coordinator or his/her alternate.

1. If a leak or spill of oil or hazardous materials (OHM) develops, the person discovering the discharge will leave the immediate area and contact the Emergency Coordinator or Alternate and Front Office providing the following information, to the extent known:

    a. Person(s) injured and seriousness of injury.

    b. Location of the spill or leak, material involved, and source.

    c. The approximate amount spilled, an estimate of the liquid and/or gas discharge rate, and the direction the liquid flow or gaseous cloud is moving.

    d. Whether the spill has been contained, or whether the flow has stopped.

    e. Whether a fire is involved.

2. The Emergency Coordinator or Alternate will contact the ambulance (911) and hospital if personnel are injured and then assess the situation to determine the following:

    a. Hazards involved.

    b. Magnitude of the problem.

    c. Resources threatened.

    d. Exclusion Zone needed or evacuation of plant required.

3. If the spill is small enough to be absorbed, neutralized or otherwise controlled at the time of release by employees in the immediate release area; does not pose an adverse exposure hazard to employees; and is within the scope of the employee's Hazcom or SPCC training then the spill will be handled in the following manner:

    a. Make sure all unnecessary persons are removed from the hazard area.

    b. If flammable material is involved, remove all ignition sources, and use spark and explosion proof equipment and clothing in containment and clean up.

    c. If possible, try to stop the leak.

d. Remove all surrounding materials that could be especially reactive with the materials in the waste. Determine the major components at the time of the spill.

e. Use absorbent pads, booms, earth, sandbags, sand, and other inert materials to contain, divert, neutralize and clean up a spill if it has not been contained by a dike or sump. Most spills contained within a dike or sump can be pumped back into the appropriate storage tank or drum. If the released material is flammable, make sure that all electrical/mechanical equipment used in the response is explosion proof.

f. Procedure to follow for leaking drum:

1. Move drum into or construct containment area;

2. Roll drum or stand up on end away from leak;

3. Drain contents (transfer to clean drum);

4. Label both drums accordingly;

5. Absorb spillage or leakage with absorbent;

6. Transfer absorbent waste to drum, label accordingly; and

7. Store until final disposal.

g. If spilled materials are flowing off site, try to stop flow from the source by using sand, earth, sandbags, etc. If this is done, pump this material out into a temporary holding tank or drum as soon as possible. If the released material is flammable, make sure that all electrical/mechanical equipment used in the response is explosion proof.

h. Place all containment and clean-up materials in drums for proper disposal (see Annex 3). Some items, such as absorbent rags or booms, may have to be cut up.

i. Place all recovered liquid wastes in drums for removal to an approved disposal site.

4. For large and/or hazardous spills the Emergency Coordinator will use the following procedure:

a. The plant receptionist will be called and advised not to accept any outside calls unless absolutely necessary so that the phone lines remain free to handle only emergency calls.

b. Initiate evacuation of the facility as necessary. Evacuation procedures are contained in Annex 3.

c. Call the ambulance service (911) for any injured persons. It may be helpful to instruct the caller in initial first aid procedures.

d. Call the fire department (911) if a fire is involved. Keep heat - exposed containers cooled with water spray and remove them from the area if possible. Note that fire emergencies generally supersede spill emergencies (see FIRE and EXPLOSION tabbed section).

IF A HISSING SOUND COMES FROM A VENTING DEVICE OR IF A DRUM BEGINS TO BULGE OR DISCOLOR, WITHDRAW FROM THE AREA IMMEDIATELY.

e. Contact (emergency response contractor) (number) for emergency spill response.

f. Contact the proper authorities (see Annex 2) to report the spill or release as deemed necessary by the Emergency Coordinator. Contact local authorities first so that, if necessary, downstream water users and/or persons downwind of the vapor can be notified and, if necessary, evacuated and/or sheltered.

5. <u>It should be noted that "Company A" personnel will not assist in handling hazardous materials spills, except minor spills which present no risk to plant personnel and are within the scope of their Hazcom and/or SPCC training</u>. For all other spills of hazardous materials, the Emergency Coordinator will contact a commercial clean-up firm.

6. All emergency equipment used in the emergency will be returned to ready status prior to resumption of plant operations in the affected area.

During the emergency, the Emergency Coordinator should be aware of the following possible problems:

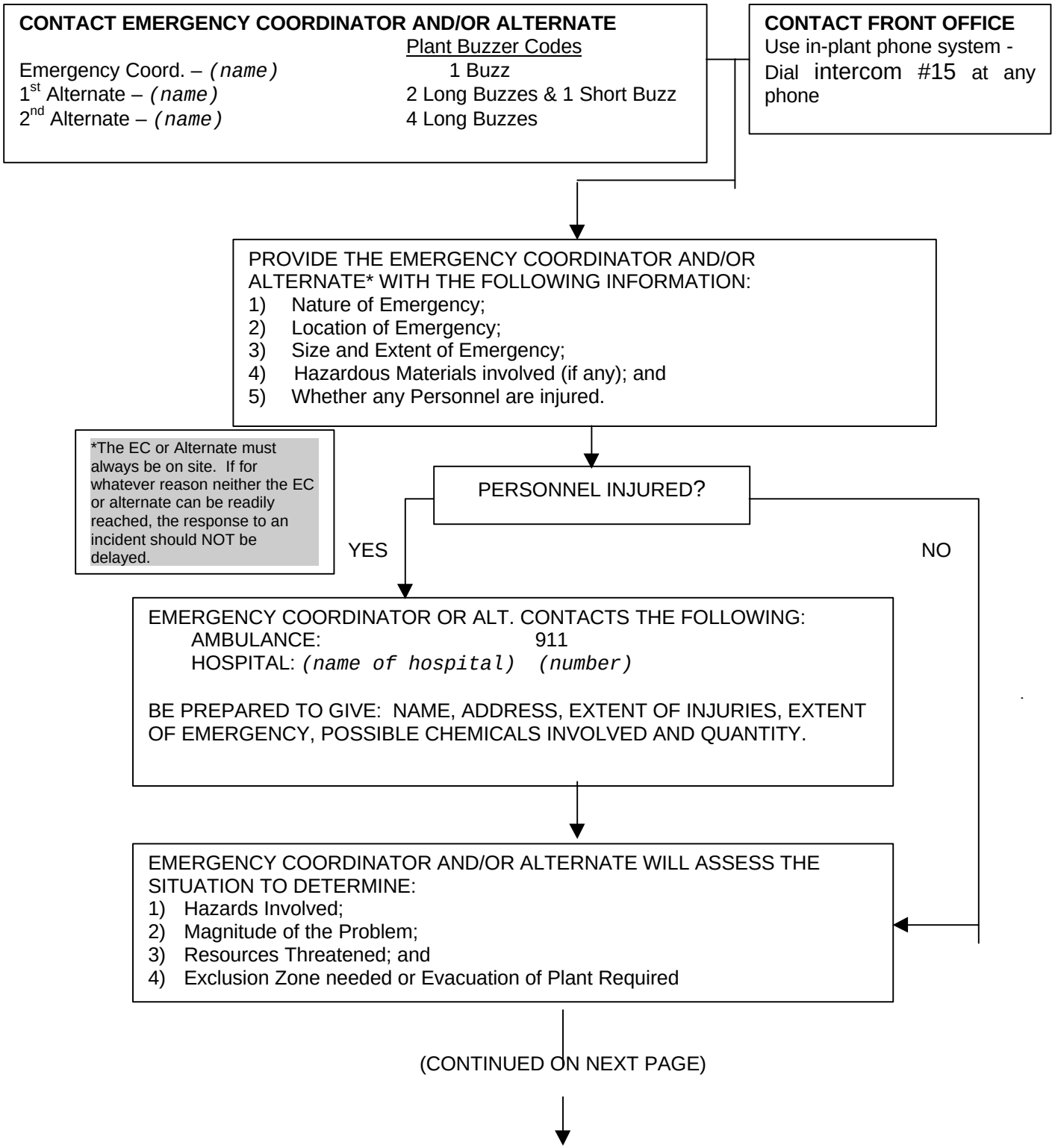
- If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure build up, gas generation, or ruptures in valves, pipes or other equipment, as appropriate.

- In the affected areas of the facility, no waste or other materials that may be incompatible with the released material should be treated, stored, or disposed of until after cleanup procedures are completed.

The Emergency Coordinator will document the incident within 15 days and begin an investigation of the incident and the effectiveness of the emergency procedures (see Annex 4).

2.2 Procedural Flow Diagram for

FIRE AND/OR EXPLOSION



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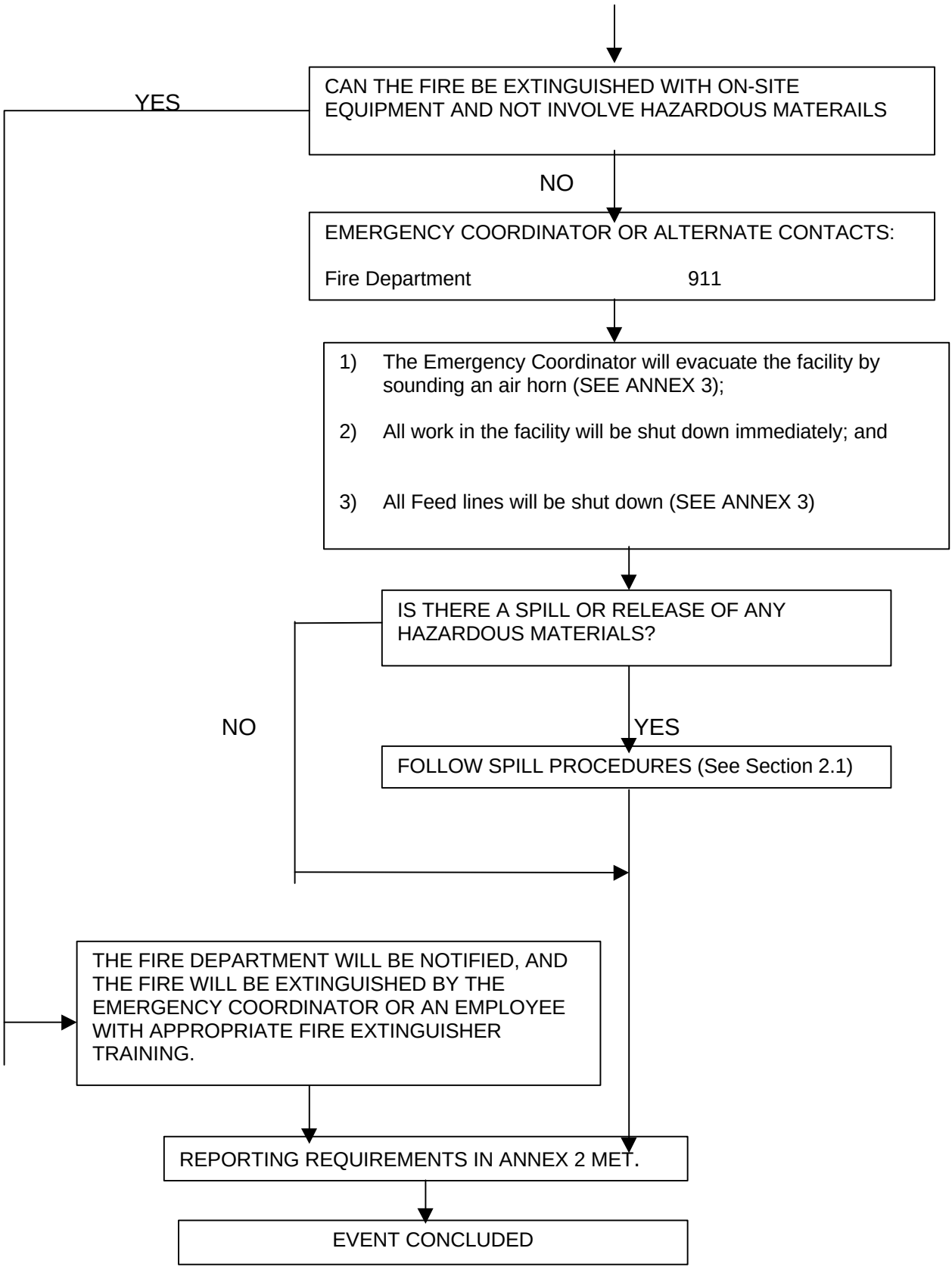
CAN THE FIRE BE EXTINGUISHED WITH ON-SITE EQUIPMENT AND NOT INVOLVE HAZARDOUS MATERAILS
YES
NO
EMERGENCY COORDINATOR OR ALTERNATE CONTACTS:
Fire Department 911
1) The Emergency Coordinator will evacuate the facility by sounding an air horn (SEE ANNEX 3);
2) All work in the facility will be shut down immediately; and
3) All Feed lines will be shut down (SEE ANNEX 3)
IS THERE A SPILL OR RELEASE OF ANY HAZARDOUS MATERIALS?
NO
YES
FOLLOW SPILL PROCEDURES (See Section 2.1)
THE FIRE DEPARTMENT WILL BE NOTIFIED, AND THE FIRE WILL BE EXTINGUISHED BY THE EMERGENCY COORDINATOR OR AN EMPLOYEE WITH APPROPRIATE FIRE EXTINGUISHER TRAINING.
REPORTING REQUIREMENTS IN ANNEX 2 MET.
EVENT CONCLUDED

A. Precautionary Measures for Fires

The following precaution measures are in place at “Company A” to minimize the spreading of fire:

- Fire extinguishers are placed throughout the facility (mostly on the building columns) and are designated by red painted areas, with identifying labels.
- Plant personnel are trained annually on how to properly use fire extinguishers.
- All employees are trained in proper reporting and evacuation procedures.
- The facility is equipped with a sprinkler system that is linked to emergency alarms and to the Anytown Fire Department; emergency 911 service is also available from all telephones.

B. Fire

1. The person discovering a fire will leave the immediate area and contact the Emergency Coordinator and the Front Office and provide the following information:

    a. Nature of the emergency.

    b. Location of the emergency.

    c. Size and extent of the emergency.

    d. Hazardous materials involved (if any).

    e. Person(s) injured and seriousness of injury.

    Note: the first priority for an employee discovering a fire should be notifying the EC, so that the chain of command is aware of the situation and so the fire department can be contacted, if needed.

2. The Emergency Coordinator or Alternate will contact the ambulance and hospital if personnel are injured and then assess the situation to determine the following:

    e. Hazards involved.

    f. Magnitude of the problem (specifically, whether the fire significant)

    g. Resources threatened.

h. Exclusion Zone needed or evacuation of plant required.

3. If the fire is small and contained (incipient) and does not involve hazardous materials:

(1) The fire department will be notified.

(2) At the same time, the Emergency Coordinator or other employee *with fire extinguisher training* will extinguish the fire.

(3) The Emergency Coordinator will determine whether the building should be evacuated for smoke build-up.

(4) The Emergency Coordinator will be notified of any injuries or damage to the building.

(5) The Emergency Coordinator will document the incident within 15 days and begin an investigation of the incident and the effectiveness of the emergency procedures (see Annex 4).

Note: check with your local fire official to determine the best course of action for responding to small/incipient fires.

4. If the fire is determined significant:

(1) The first person seeing the fire will alert plant personnel with an air horn and notify the front office over the telephone system.
Note: if a phone with an outside line is immediately accessible, the person should sound the alarm, then notify the fire department, then notify the front office.

(2) Upon hearing the air horn or the automatic alarm system, all office and plant personnel will evacuate the facility.

(3) The front office will notify the fire department by dialing 911 in order to give the emergency center the name and address of the facility and the nature of the call (fire).

(4) All feed lines and additional equipment will be shut down as necessary and practical.

(5) “Company A” employees will exit the nearest emergency exit and report to the rally area. If the location of the fire blocks an emergency exit, the employee will exit the nearest emergency exit away from the fire.

(6) Contract personnel or visitors are the responsibility of “Company A” and must evacuate to the rally point for accountability.

(7) The employee recognizing the emergency situation and beginning the evacuation will locate the emergency coordinator (at the rally point) to give the location and type of fire (oil, paper etc).

(8) The emergency coordinator will account for all employees. Names of persons present will be taken to assist the emergency coordinator in determining the presence of all employees. The emergency coordinator will report any missing employees to the first authorized emergency responder on site.

(9) Upon arrival of the fire department, the Emergency Coordinator and employee discovering the fire will report the location and type of fire and any missing employees.

(10) The Emergency Coordinator will turn the gas valve (located outside the loading dock - See Annex 2) off as the evacuation occurs.

(11) All employees will refrain from speaking to the media until all facts are gathered and a credible report can be given.

(12) After the incident is complete, the Emergency Coordinator and person locating the fire will document the incident (see Annex 4).

During the emergency, the Emergency Coordinator should be aware of the following possible problems:

- If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure build up, gas generation, or ruptures in valves, pipes or other equipment, as appropriate.

- In the affected areas of the facility, no waste or other materials that may be incompatible with the released material should be treated, stored, or disposed of until after cleanup procedures are completed.

ANNEX 1

FACILITY SITING

This section is comprised of:

- a topographical map noting “Company A”’s location and the location of local receptors, such as schools, hospitals, watersheds, pumping stations, wells, etc;
  note: the scale of this map should be reflect the zone expected to be impacted by any plume that escapes the facility
- several maps showing the complete site plan for the facility, broken down by building and floor, noting location of chemicals, water, electric, gas, sprinkler cut-offs, containment equipment, fire extinguishers, exits, emergency exits, routes of exit, rally points and other items.

ANNEX 2

NOTIFICATION

ANNEX 2

NOTIFICATION

1.0 INTERNAL NOTIFICATION

In the event of an emergency, the employee discovering the incident will immediately contact the Emergency Coordinator and the front office. If the Emergency Coordinator is not in the area of the emergency, he can be contacted through the front office*. The front office can be contacted by using any phone in the plant and dialing intercom #15: (1) call the front office; (2) provide the location and type of emergency; (3) the front office will contact the Emergency Coordinator through a buzzer system. The buzzer codes for the Emergency Coordinator and the alternates are as follows:

Emergency Coordinator	-	1 buzz
1st Alternate	-	2 long buzzes and 1 short buzz
2nd Alternate	-	4 long buzzes

If a fire activates the sprinkler system, an alarm is automatically sounded and the fire department is notified. All office and plant personnel will immediately evacuate and meet at the designated rally point (see Annex 3). For all other emergencies, evacuation will be at the discretion of the Emergency Coordinator or his alternates. The evacuation signal in the plant is an air horn and office personnel will be notified through the plant phone system.

2.0 COMMUNITY NOTIFICATION

To notify neighboring properties and/or to evacuate an area outside of the facility, “Company A” will contact the Anytown Fire Department (which is also the Local Emergency Planning Committee**) at *(number)*. The LEPC will be responsible for determining the need for area evacuation.

***Note:** The EC or Alternate must always be on site. If for whatever reason neither the EC or alternate can be readily reached, the response to an incident should NOT be delayed.

** **Note:** Facilities should contact their municipality to determine which agency(ies) should immediately be contacted in the case of an incident, and which agency(ies) serve as chair of the LEPC. Depending on the municipality, the fire department may or may not be the LEPC.

3.0 LOCAL, STATE AND FEDERAL REPORTING REQUIREMENTS

A variety of Local, State and Federal reporting requirements exist for the reporting of emergencies and chemical releases. Provided below is a description of the criteria applicable to "Company A" for reporting under various regulations.

3.1 Local Spill Requirements

Note: contact your LEPC to determine what local spill reporting requirements exist for your facility.

3.2 State Spill Requirements

If a Massachusetts Oil/Hazardous Material (OHM) is released, the Commonwealth requires:

1. Immediate containment of the spill shall be initiated such as blocking of adjacent drains, constructing dikes, etc., using all available containment materials on-hand.

2. Contained materials shall be removed as soon as possible and placed into proper containers. All equipment and manpower shall be utilized to remove spilled materials promptly and in a safe manner.

3. In the event that the spill is beyond the means of available manpower and materials on-hand, the Emergency Coordinator will contact the nearest available clean-up contractor.

4. Releases in quantities equal to or greater than the Massachusetts RQ listed in Table A2-1 of any OHM's stored on-site; or a release that causes a sheen on a surface water; or poses an imminent hazard* shall be reported to the Massachusetts Department of Environmental Protection (DEP) within two (2) hours of the actual or threaten release:

   Massachusetts DEP, *(region)* - Phone: *(number)*

   **An Imminent Hazard* for the OHMs at "Company A" is equivalent to the presence of vapor within a building or structure at or greater than 10% of the Lower Explosive Limit (LEL); a threat to human health; or an acute impact to fish populations.

   Note: any spill of OHM that threatens a navigable waterway must be reported, regardless of whether the amount is less than the reportable quantity for that material.

The following information should be provided to the MA DEP, to the best of the reporting person's knowledge, upon oral notification of a spill:

(a) the name and telephone number of the caller;
(b) the location of the release or threat of release;
(c) the date and time the release occurred;
(d) the set(s) of notification criteria that is the basis for notification;
(e) the name of the oil and/or hazardous material(s) released or of which there is a threat of release;
(f) the approximate quantity of the oil and/or hazardous material(s) which has been released or of which there is a threat of release;
(g) the source of the release or threat of release;
(h) a brief description of the release or threat of release;
(i) the name and telephone number of the owner/operator of the site or vessel where the release has occurred or at which there is a threat of release;
(j) the name and telephone number of a contact person at the site or vessel where the release has occurred or at which there is a threat of release;
(k) a description of Immediate Response Actions taken or proposed to be taken in response to the release or threat of release, as specified in 3 1 0 CMR 40.0420;
(l) the names of other federal, state or local government agencies that have been notified of and/or have responded to the release or threat of release; and
(m) any other information, including without limitation, potential environmental impacts, that is relevant to assessing the degree of hazard posed by the release or threat of release.

Follow-Up Reporting -Spills Greater Than 10 Gallons

After a spill or release above the reportable quantity for a hazardous material listed in 310 CMR 40.1600, the Emergency Coordinator must make an written notification of the event on a Release Notification Form within sixty (60) days to the following agency:

State of Massachusetts
Department of Environmental Protection
Bureau of Waste Site Clean-Up
(regional office address)

A Release Notification Form and instruction document are enclosed with this Annex.

3.3 Clean Water Act (CWA) Requirements (Federal)

Section 311(b)(5) of the Clean Water Act (CWA), codified at 40 CFR 110, establishes reporting requirements for the release of oils into navigable waters, which include wetlands. Releases of oil to navigable waters that: (1) cause a sheen to appear on the surface, (2) violate applicable water quality standards, or (3) cause a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines is reportable to the National Response Center at 1-800-424-8802. Notification must be submitted as soon as "Company A" has knowledge of any discharge meeting any of these three thresholds in and around the wetlands area located northwest of the facility or the drainage stream located along the western boundary.

3.4 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Releases (Federal)

Section 104 of CERCLA (also known as "Superfund"), codified at 40 CFR 302, requires that if an amount equal to or greater than the reportable quantity of a CERCLA hazardous substance is released into the environment over a 24 hour period, the operator, as soon as he/she has knowledge of the release, must immediately notify the National Response Center (1-800-424-8802). Releases that are wholly contained inside a closed containment structure (e.g. building) are not reportable. It should be noted that a release contained entirely within the building constitutes a release under CERCLA and is reportable, if more than the reportable quantity is released to air by vents or land/water by cracks in the building floor.

The CERCLA hazardous substances used at "Company A" and their respective reportable quantities (RQ) are included in Table A2-1.

Under 40 CFR 355.40, releases of CERCLA hazardous substances or Extremely Hazardous Substances must be immediately reported to the National Response Center (1-800-424-8802), the Massachusetts Department of Environmental Protection (telephone 1-888-304-1133), and the Local Emergency Planning Committee (who will be notified when the DEP is notified) if:

- Release has the potential to affect persons beyond the facility boundaries;

- Amount equal to or exceeds the hazardous substance or extremely hazardous substance's Reportable Quantity; and

- RQ value is met or exceeded within any 24-hour period.

The following information, to the extent known, must be provided **by** the owner or operator of the facility:

(1) The chemical name or identity of the substance released;
(2) Whether the substance is an EHS;
(3) The quantity released;
(4) The time and duration of the release;
(5) The medium or media into which the release occurred;
(6) Any relevant medical information (health risks, etc.);
(7) Precautions to take, including evacuation; and
(8) The name and telephone number of the person to contact for further information.

As soon as practical after reporting the release, the owner or operator must submit a written report of the incident and information listed above which additionally includes the following information:

(1) Actions taken to respond to and contain the release;

(2) Any acute and chronic health effects from the release; and

(3) Any advice regarding medical attention necessary for exposed individuals.

Several exemptions to this reporting requirement are provided under paragraph 355.40(a)(2), which should be carefully reviewed to determine if reporting is required.

It appears, based on review of current site operations, that **ammonia** is the only Extremely Hazardous Substances used at “Company A”. The CERCLA hazardous substances and EHS used at “Company A” and their respective reportable quantities (RQ) are included in Table A2-1.

TABLE A2-1
Hazardous Material Storage
"Company A" Company
Anytown, MA

Material	Hazardous Components	% by Weight	Hazard[1]	CERCLA Reporting Quantity (RQ) 40 CFR 302	Massachusetts Reporting Quantity (MRQ) 310 CMR 40	Note
Emulsion	Acrylic Polymer Ammonia	~50% ~0.2%	• Slightly toxic Hazard Rating = 2	(Ammonia = 100lbs) Emulsion RQ = 50,000lbs	(Ammonia = 10 lbs.) Emulsion MRQ = 5,000 lbs.	Material is stable. It is not known to be incompatible.
Soy Lecithin	Soybean Lecithin		Non-hazardous	None	None	Use dry chemical, carbon dioxide to extinguish
Dioctyl Adipate (DOA)	Dioctyl Adipate	100%	• Slightly flammable Hazard Rating = 1 *can ignite explosively	None	None	Water or foam may cause frothing which can be violent
Alkyd Resin 564-50F	Toluene	50%	• Highly flammable Flash point = 45°F Hazard Rating = 3 • Moderate health hazard Hazard Rating = 2	(Toluene - 1,000 lbs.) Alkyd Resin 564-50F RQ = 2,000	(toluene = 50 lbs.) Alkyd Resin 564-50F MRQ = 100 lbs.	Extinguishing media - Foam, CO_2, dry chemicals. Water may be unsuitable. Incompatible with strong oxidizers, acids, gases
Alkyd Resin 449-50V	VM&P Naphtha	50%	• Highly flammable – Flash point = 53°F Hazard Rating = 3 Moderate health hazard Hazard Rating = 2	None	(VM&P Naphtha = 10 lbs.) Alkyd Resin 449-50V MRQ = 20 lbs.	Extinguishing media - Foam, CO_2, dry chemicals. Water may be unsuitable. Incompatible with strong oxidizers, acids, gases
Methanol	Methyl Alcohol	100%	• Highly flammable – Flash point = 54°F Hazard Rating = 3 • Moderate health hazard Hazard Rating = 2	5,000 lbs.	100 lbs.	Extinguishing media – Foam, CO_2, dry chemicals. Water may be unsuitable. Incompatible with strong oxidizers, acids, gases
Blend A	Xylene Toluene	20% 80%	• Highly flammable – Flash point = 54°F Hazard Rating = 3 • Moderate health hazard Hazard Rating = 2	(Toluene = 1,000 lbs.) (Xylene = 1,000 lbs.) Blend A RQ = 1,250 lbs.	(Toluene = 50 lbs.) (Xylene = 50 lbs.) Blend A MRQ = 50 lbs.	Extinguishing media – Foam, CO_2, dry chemicals. Water may be unsuitable. Incompatible with strong oxidizers, acids, gases
Acetone	Acetone	100%	• Highly flammable – Flash point = 54°F Hazard Rating = 3 • Moderate health hazard Hazard Rating = 2	5,000 lbs.	100 lbs.	Incompatible with strong oxidizers, acids. Fire extinguisher methods: Foam, CO_2 or dry chemical
Heptane	Heptane	100%	• Highly flammable – Flash point = 54°F Hazard Rating = 3 • Moderate health hazard Hazard Rating = 2	None	10 lbs.	Incompatible with strong oxidizers, acids. Fire extinguisher methods: Foam, CO_2 or dry chemical
Texanol Ester Alcohol	Trime-1,3-Pentanediol, Monoisobutyrate	100%	• Slight Health Hazard Hazard Rating = 1	None	None	Extinguishing media – form, CO_2, dry chemical. Water or foam can cause frothing which can be violent.

Hazard Rating – 0 = Non-Hazardous, 4 = Extremely Hazardous

3.5 Hazardous Materials Transportation Act (HMTA) Notification (Federal)

Under 49 CFR 171.15, if a release of hazardous materials occurs in transport (including loading or unloading) which causes injury or death, property damage over $50,000, public evacuation or major road closure lasting more than 1 hour, aircraft re-routing, spillage or fire of a radioactive or etiologic material, or continuing danger of life at the scene of the Incident exists, then the carrier must notify the Department of Transportation via the National Response Center (1-800-424-8802). Each notice must include the following information:

(1) Name of reporter;

(2) Name and address of carrier;

(3) Phone number where reporter can be reached;

(4) Date, time and location of incident;

(5) The extent of injuries, if any;

(6) Type and quantity of materials involved; and

(7) Type of incident and whether a continuing danger to life exists at the scene.

The carrier must also submit a written report regarding the incident within 30 days, and if <u>any</u> unintentional release of hazardous material occurs (under conditions not necessarily listed above), a written report must be submitted.

ANNEX 3

RESPONSE MANAGEMENT SYSTEM

ANNEX 3

RESPONSE MANAGEMENT SYSTEM

1.0 INTRODUCTION

All emergencies require prompt and deliberate action. In the event of any major emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible; however, in specific emergency situations, the Emergency Coordinator and/or alternate may deviate from the procedures to provide a more effective plan for bringing the situation under control. **"Company A" employees will not engage in emergency response operations other than incipient fires or incidental releases of hazardous materials as defined in their fire extinguisher or Hazcom training, respectively. In the event of an emergency, all "Company A" employees will be evacuated and outside response personnel will be called in.** The Emergency Coordinator and/or alternate is responsible for determining which emergency situations require plant evacuation.

The facility employs an internal phone system which can be used to communicate between the office and the plant and to outside lines, but does not have a paging/loud speaker system. A buzzer system is used from the office to contact key plant personnel. Total plant evacuation is initiated if the automatic fire alarm is activated or if initiated by the Emergency Coordinator. The Emergency Coordinator will initiate evacuation in the plant through an air horn and will alert office personnel through the phone system.

2.0 EVACUATION PLAN

In the event that a plant evacuation is called for by the Emergency Coordinator or his/her alternate, the following actions will be taken:

(1) All vehicle traffic within the plant will cease in order to allow safe exit of personnel and movement of emergency equipment. Vehicles must be parked " off the main aisles without blocking exit aisles or doors. The keys must remain with the vehicles;

(2) All personnel, visitors and contractors will immediately leave the plant area and proceed to the rally point. The evacuation routes are posted throughout the plant and are shown on Figures A3-1 – A3-3 (*not included here)*. **There are no known critical operations in the plant, therefore, no one will remain**

within the plant. All personnel, visitors and contractors will be directed to an offsite rally point equipped with phone and parking if the onsite rally point is within the danger zone for the specific incident.

(3) No persons shall remain or re-enter the location unless specifically authorized by the Emergency Coordinator. In allowing this, the Emergency Coordinator assumes responsibility for those persons within the perimeter;

(4) “Company A” personnel are to notify their drivers at Shipping/Receiving of two (2) options:

(a) Leave the truck and evacuate to the Rally point.

(b) Take truck, leave premises and go up the road and return after the "All Clear" from the Emergency Coordinator or his/her Alternate.

(5) Once outside the building, employees are to report to the rally point. The rally point, as shown on Figure A3-1, is located south of the driveway entrance. If needed, personnel will be moved to the offsite rally point;

Note: it is recommended that the location of the offsite rally point be specified

(6) The Emergency Coordinator will take a head count at the Rally point to determine if there are any missing in-house employees;

(7) Contractors/visitors will be accounted for by the individuals they are working/visiting at the rally point.

(8) No attempt to find persons not accounted for will involve endangering lives of others by re-entry into emergency areas;

(9) Th Emergency Coordinator will relay all pertinent information to the emergency responders.

(10) Re-entry into the area will be made only after clearance is given by the Emergency Coordinator or his/her alternate. At his/her direction, an "All Clear" signal will be given for re-entry into the plant; and

(11) In all questions of accountability, employees will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors are the responsibility of those persons administering the individual contracts.

3.0 OFF-SITE NOTIFICATION/EVACUATION PROCEDURE

To notify neighboring properties and/or to evacuate an area outside of the facility, “Company A” will contact the Anytown Fire Department at 911 and the State Emergency Response Commission at (888) 304-1133. The emergency coordinator

must make a determination if the emergency will or could potentially effect neighboring properties. A facility siting map, depicting neighboring properties, is included as Figure A3-4. As can be seen, there is a shopping mall (Anytown Stores) immediately north of "Company A" and a parking lot for the mall immediately west of "Company A". The property is bounded to the east by a railroad and multiple commercial, industrial, and residential properties are located east of the railroad right of way. If an incident occurred that involved multiple storage tanks at "Company A", these and other properties may be affected. To assess the need to notify neighboring properties the emergency coordinator must evaluate:

- The types and volumes of hazardous materials involved or potentially involved, if any;
- The wind direction (a wind sock should be installed near the rally point to help assess wind direction);
- Potential for spills to reach surface water bodies or off-site properties;
- The time of day.

If any doubt exists the emergency coordinator should notify the appropriate agencies to begin initial evacuation.

4.0 DECONTAMINATION AND DISPOSAL

4.1 Decontamination Procedures

Decontamination of personnel and equipment must be conducted to reduce or eliminate the transport of contaminants from the emergency area into other areas of the facility or out into the environment where unprotected personnel may be exposed. Decontamination methods for personnel will depend on the type of contaminants, protection level, work assignment and operation location. "Company A" personnel will not respond to spills or any other emergency incident which is not incidental and poses a safety or health hazard. For all spills or other emergency incidents that are greater than incidental or pose a safety or health hazard, an outside contractor will be contacted by the emergency coordinator or his designee if a spill or any other emergency incident poses a safety or health hazard to "Company A"

personnel. If a contractor has to be called in, the contractor will be responsible for the decontamination of their equipment. On-site and off-site remediation plans should utilize licensed contractors that meet requirements under the Mass Contingency Plan (310 CMR 40.0000) and OSHA HAZWOPER (29 CFR 1910.120).

Note: facilities should make contract arrangements with licensed clean-up contractor(s) ahead of time, and familiarize them with the operations and materials used at the facility

If an incident occurs where contamination levels are expected to be heavy because of elevated contamination levels or the type of work, a more rigorous decontamination protocol may be necessary, such as a hexane rinse for protective equipment and/or soap wash station along with appropriate rinsing. If oils or heavy contamination is encountered, then steam cleaning of work surfaces may be necessary. For small equipment (hand tools, analytical equipment), a wipe down with a soap spray should be sufficient. Again, for heavy contamination, additional measures may be warranted.

4.2 Disposal Procedures

All discarded materials, waste materials, or other objects shall be handled in such a way as to avoid the potential for spreading contamination, creating a sanitary hazard, or causing litter to be left on-site. All potentially contaminated material (i.e. clothing, gloves, disposable equipment, and soil) will be drummed and disposed off-site at a licensed facility. Additionally, all decontamination liquids (if any) will be collected, drummed and shipped off-site to a licensed facility for disposal.

ANNEX 4

INCIDENT DOCUMENTATION

ANNEX 4

INCIDENT DOCUMENTATION

1.0 POST ACCIDENT INVESTIGATION

At the conclusion of an incident that required the implementation of the ICP, the emergency coordinator and the employees involved in the incident must complete an attached Incident Report. In addition the emergency coordinator must ensure that required follow-up documentation, if any, to State, Federal and Local officials (see Annex 2) has been submitted within the specified time frame. A copy of any written reports/notifications should be maintained in this section to verify that "Company A" met its legal obligations.

2.0 INCIDENT HISTORY

Based on review of facility files and interviews of facility personnel, no emergency incidents have occurred at "Company A" in the last five years. Any incidents that occur in the future must be documented in this Annex (see Incident Report) to aid incident investigations and planned reviews. Incident details, as wells an accurate emergency history, will help identify problem areas within the ICP and/or the facility so that future accidents may be avoided and employee safety during emergency responses can be improved.

3.0 INCIDENT REPORT

When did the incident occur? date _____ time _____

Where did the incident occur?

How did the incident occur?

Who reported the crisis?

Under whose control and what regulatory authorities are responsible or affiliated with the crisis?

Describe the incident briefly.

Were there any chemicals/oils or raw materials involved?

Were there any reportable injuries, spills, or public notifications?

What course of action was taken?

Initially:

Follow-Up:

3.0 INCIDENT REPORT
(continued)

What actions are being taken to prevent re-occurrences of an incident of this type? (Attach additional sheets, if necessary.)

I hereby affirm the aforementioned is true to the best of my knowledge.

_____	_____	_____
Signature	***Title***	***Date***

_____	_____
PRINT NAME	**TELEPHONE NUMBER**

ANNEX 5

TRAINING AND EXERCISES/DRILLS

ANNEX 5

TRAINING AND EXERCISES/DRILLS

1.0 TRAINING

Proper training is essential to the success of any emergency response action. All employees of “Company A” will be trained in emergency response procedures. “Company A” will provide training for all new employees and provide refresher training for all employees annually. Additionally, training will be provided whenever:

- There are changes to materials or equipment within the facility;
- The ICP is updated; and
- Exercises/Drills indicate that employees do not understand their responsibilities.

Basic training for all employees will be conducted by the Emergency Coordinator and should include, at a minimum, the following items:

(1) Risk/spill prevention as described in Annex 7

(2) A review of the ICP and description of its components.

(3) Individual roles and responsibilities.

(4) Information about hazards (e.g. flammable liquids) and protective actions.

(5) Notification, warning and communication procedures.

(6) Emergency response procedures.

(7) Evacuation and accountability procedures.

(8) Location and use of common emergency equipment.

In addition to the basic training described above, plant personnel will each receive fire extinguisher training annually and the Emergency Coordinator will receive additional training in emergency response (e.g. 24 or 40 Incident Command Training). Records of all training, including who was trained, when, and by whom, should be documented and maintained on file. An example of a training log is included with this Annex.

1.1 EMPLOYEE EMERGENCY RESPONSIBILITIES

Employee's responsibilities and training requirements for actions covered in this document are described below.

Emergency Coordinator and Alternates:

1. Training/Education Requirements:
   - High School degree or equivalent
   - 24 or 40 hour Incident Command Training – one time
   - 8 hour refresher - annually
   - Hazard Communication Training - annually
   - Fire extinguisher training – annually
   - A thorough knowledge of the facility and the Integrated Contingency Plan

2. Emergency Responsibilities:
   - Determining the need to activate the Integrated Contingency Plan
   - Determining when evacuation is required
   - Contacting outside response personnel – the emergency coordinator has the authority to contract with commercial response firms during an emergency
   - Shutting down the natural gas flow into the facility
   - Accounting for all personnel at the rally point
   - Notifying the proper authorities
   - Training plant and office personnel
   - Updating outside response personnel during an emergency
   - Authorizing re-entry in to the facility at the conclusion of an emergency action
   - Ensuring that emergency equipment (e.g. speedi-dry) is properly maintained
   - Documenting each incident and reviewing the ICP to insure its adequacy and that it is up-to-date

Plant Personnel:

1. Training/Education Requirements
   - Integrated Contingency Plan Training - annually
   - Hazard Communication Training - annually
   - Fire extinguisher training – annually

2. Emergency Responsibilities
   - Notify the Emergency Coordinator and the front office when discovering an emergency incident
   - Evacuate the building and meet at the rally point when ever the evacuation signal or fire alarm is activated
   - Shut down all vehicles and equipment before evacuating
   - Account for all contractors/visitors that are at "Company A" to meet with the employee

Office Personnel:

1. Training/Education Requirements
   - Integrated Contingency Plan Training - annually
   - Hazard Communication Training - annually

2. Emergency Responsibilities
   - Notify the Emergency Coordinator when an emergency incident is discovered
   - Contact outside response personnel at the desecration of the Emergency Coordinator or in the event the Emergency Coordinator is incapacitated as a result of the emergency
   - Evacuate the building and meet at the rally point when ever the evacuation signal or fire alarm is activated
   - Account for all contractors/visitors that are at “Company A” to meet with the employee

2.0 EXERCISES/DRILLS

Conducting exercises is one of the best means for assessing emergency plans and procedures, for determining the readiness of emergency responders, for resolving questions of coordination and clarifying roles and responsibilities, and for promoting awareness of potential hazards.

Once employees have been trained, “Company A” should conduct exercises to determine if the ICP is workable and to determine if people are properly trained. In addition, it will give employees an opportunity to become familiar with their responsibilities so that they will act more instinctively during an emergency.

Each exercise should revolve around a potential emergency that is likely to arise at “Company A” (e.g., a release of a flammable material). At least one exercise a year (as required by EPCRA) should be coordinated with the outside agencies that will respond to an actual emergency. These agencies include the Anytown Fire and Police Departments, EMTs, LEPC, private spill response contractors, and potentially should also include neighboring properties. The exercise should be carried through each phase of an emergency (e.g., discovery, notification, and evacuation) following the steps listed in the Core Plan.

During the exercise a person from “Company A” (possibly (owner’s name)) should act as observer to evaluate the response. Following the exercise the observer, the Emergency Coordinator, and the responding agencies should thoroughly analyze each component of the response and make recommendations for modifying the ICP or re-training personnel.

ANNEX 6

RESPONSE CRITIQUE AND PLAN REVIEW AND MODIFICATION PROCESS

ANNEX 6

RESPONSE CRITIQUE AND PLAN REVIEW AND MODIFICATION PROCESS

1.0 PLAN REVIEW

"Company A" will review the ICP at least once a year and under the following conditions. All reviews/revisions will be documented in Section I.3

1) Upon consummation of arrangements with local fire department, police department, hospital, and commercial clean-up contractors.

2) Plan fails during emergency or training exercise:

   - Unanticipated problems arise; or
   - Emergency contacts not properly equipped to handle situation.

3) Personnel changes; e.g. Emergency Coordinator or Alternate changed.

4) Facility altered:

   - Physical Modifications;
   - Process Changes;
   - Process Chemical changes;
   - Technical or Equipment modifications; or
   - New emergency equipment installed.

2.0 AUDITS

In addition SPCC and Process Safety regulations require "Company A" to audit the ICP at least once every three years, to verify that the procedures and practices developed in the Plan are adequate and are being followed. Significant changes made to the Plan must be certified by a Professional Engineer (see Annex 8). The following changes to operations and equipment on-site also require an update and possible re-certification of the SPCC plan by a Professional Engineer:

- Commission or decommission of tanks;
- Replacement, reconstruction, or movement of tanks;
- Reconstruction, replacement, or installation of piping systems;
- Construction or demolition that might alter secondary containment structures.

ANNEX 7

PREVENTION

ANNEX 7

PREVENTION

1.0 SPILL PREDICTION AND CONTROL

Table A7-1 describes the volume and location of the materials stored at "Company A" as depicted in Annex 1. Also included in Table A7-1 is a description of the type of failure(s) anticipated from each storage unit, estimated amount of material that may be released and the probable flow direction of a spill if one were to occur. Following the Table is a description of recommended measures for the avoidance and/or containment of a release of material from the facility.

Currently, secondary containment for materials stored in tanks at "Company A" is assumed to be provided by the building. To ensure adequate containment, "Company A" will continually inspect each storage area for penetrations/cracks in floors and walls and repair as necessary. In addition, provisions are being made to augment secondary containment volume by installing containment berms in doorways and other wall penetrations to ensure containment volumes of at least 110% of the largest storage unit in each storage area.

Following Table A7-1 is a summary of State and Federal regulations, applicable to "Company A", for the storage and use of flammable and combustible liquids. Both regulations were written using guidance from the National Fire Protection Association (Code 30 – Flammable and Combustible Liquids) and represent measures/procedures that will help prevent fires.

The best method for preventing releases of hazardous materials or fires is to eliminate the use of hazardous materials at the facility. "Company A" actively pursues toxic use reduction and has been extremely effective at reducing the generation of waste. By lobbying state and local agencies, "Company A" has also been able to move clients from solvent based traffic paints to water based products and continually reviews formula modifications for safer products. Until safer material substitutes are found, however, "Company A" will be required to use flammable material even in water based products. To ensure the safe storage and use of flammable materials "Company A" must comply with the issues discussed below.

TABLE A7-1
POTENTIAL SPILL PREDICTION AND CONTROL
"COMPANY A" COMPANY
ANYTOWN, MASSACHUSETTS

Area/Floor	Material Storage/ Volume	Potential Type of Failure	Potential Spill Volume	Flow Direction
Plant 3rd Floor	Alkyd 449 – 50V 2 – 3,500 gal.	Tank Failure	3,500 gal..	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal	To pavement toward drainage swale between office and plant
	Alkyd 564 – 50T 2 – 3,500 gal.	Tank Failure	3,500 gal.	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal.	To pavement toward drainage swale between office and plant
	Methanol 3 – 3,500 gal.	Tank Failure	3,500 gal.	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	Texanol 1 – 3,000 gal.	Tank Failure	3,500 gal.	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	Latex (Stan Chem) 1 – 3,000 gal.	Tank Failure	3,000 gal.	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	Dioetyl Adipate 1 – 1,800 gal.	Tank Failure	1,800 gal.	Contained by concrete floor and walls inside Rework Room. Possible discharge to area outside of room.
		Spill During Transfer	5 – 30 gal.	To pavement toward drainage swale between office and plant
	Latex 3 – 3,000 gal.	Tank Failure	3,000 gal.	To concrete floor and to second floor through holes made for piping/utilities.
		Spill During Transfer	5 – 30 gal.	To railroad bed and down slope toward the southeast side of the building
	Miscellaneous Drum Storage	Drum Failure	55 gal.	Contained by concrete floor, possible discharge to holes made for pipe/utility
Plant 2nd Floor	Laboratory Sample Storage Volume Varies	Container Failure	5 – 10 gallons	Contained by concrete floor
	Miscellaneous Drum Storage	Drum Failure		Contained by concrete floor

TABLE A7-1
POTENTIAL SPILL PREDICTION AND CONTROL
"COMPANY A" COMPANY
ANYTOWN, MASSACHUSETTS

Area/Floor	Material Storage/ Volume	Potential Type of Failure	Potential Spill Volume	Flow Direction
Plant 1st Floor	Latex – Product 2 – 6,400 gal.	Tank Failure	6,400 gal.	Retained within concrete floor and sidewalls
		Spill During Transfer	5 – 10 gallons	Retained within concrete floor and sidewalls
	Heptane 1 – 3,000 gal.	Tank Failure	6,400 gal.	Retained within concrete floor and sidewalls
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	Acetone 1 – 6,500 gal.	Tank Failure	3,000 gal.	Retained within concrete floor and sidewalls
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	Toluene/Xylene 1 – 6,500 gal.	Tank Failure	6,500 gal.	Retained within concrete floor and sidewalls
		Spill During Transfer	5 – 30 gal.	To paved parking area on northwest side of building
	4 Mixing Tanks	Tank Failure	Variable	Released to concrete floor – potential to be released outside of buildings through overhead doors or exit doors
		Spill During Transfer		Released to concrete floor – potential to be released outside of buildings through overhead doors or exit doors
	Soya Lecithin 1 – 3,000 gal.	Tank Failure	3,000 gal.	Released to concrete floor – potential to be released outside of buildings through overhead doors or exit doors
		Spill During Transfer	5 – 30 gal.	To pavement parking area on northwest side of building
	White Fast Dry 2 – 3,000 gal.	Tank Failure	3,000 gal.	Released to concrete floor – potential to be released outside of buildings through overhead doors or exit doors
		Spill During Transfer	5 – 30 gal.	Contained by concrete floor
	Yellow Fast Dry 2 – 3,000 gal.	Tank Failure	3,000 gal.	Released to concrete floor – potential to be released outside of buildings through overhead doors or exit doors
		Spill During Transfer	5 – 30 gal.	Contained by concrete floor
	Miscellaneous Drum Storage	Drum Failure	55 gal.	Contained by concrete floor
Laboratory	5 Gallon Material Storage	Drum Failure	5 gallons	Contained by concrete floor

2.0 FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE

The storage and use of flammable and combustible liquids within "Company A" are regulated by both OSHA (29 CFR 1910.106) and the Commonwealth of Massachusetts Fire Prevention Regulations (527 CMR). Most of the materials stored in bulk at "Company A" are defined by both regulations as Class IB Flammable Liquids, flash points at or below 73^0 F with boiling points above 100^0F. A summary of the regulations as they apply to fire prevention at "Company A" is provided below.

3.0 TANK STORAGE

Aboveground tanks used for the storage of Class I flammable liquids must be constructed of steel unless required by the properties of the material to be stored, and must meet stringent design standards. In addition:

Recommended/Compliance Action	"Company A"'s Status
• Tanks and piping should be properly labeled to identify the contents and hazards associated with the material stored	• All tanks are labeled properly and "Company A" is the process of re-labeling piping
• Must be adequately ventilated for both normal and emergency conditions	• All tanks are adequately ventilated
• Means must be provided for determining the liquid level in the tank that is accessible to delivery personnel	• Some tanks have level indicators and "Company A" is installing level indicators on the tanks that currently do not have indicators. All deliveries are supervised by a "Company A" employee to prevent overfills
• Each tank must have an audible alarm which indicates when the tank has reached 90% capacity and must have an automatic shut-off (or restrict flow to 2.5 gallons/minute) when the tank reaches 95% capacity	• "Company A" is updating their tanks with the required alarm systems, flow restricters.
• Liquids should not be transferred by gravity and can not be transferred with compressed air	• All liquids are pumped into and from storage tanks.
• Tanks must have an automatic-closing heat actuated valve on each withdrawal connection below the liquid level	• "Company A" is updating their tanks with the required valves.

5.0 LOADING AND UNLOADING

In addition to the items discussed in the following table, “Company A” also inspects the delivery truck before and after delivery to ensure that it is not or has not leaked; has supplied spill equipment near the point of delivery; and ensures that the driver has received the proper training for the transportation of hazardous materials.

Recommended/Compliance Action	“Company A’s” Status
• Tank vehicles must be separated from aboveground storage tanks, warehouse, other buildings, and adjoining properties by at least 25 feet	• Tank vehicles are separated from the storage tanks by at least 25 feet at the time of delivery
• Valves used for the final control for filling tank vehicles must be self-closing if means for automatically shutting-off the flow when the vehicle is full is not provided.	• “Company A” will check with their supplier to determine the delivery trucks capabilities.
• Static protection must be provided when filling a tank vehicle through an open dome.	• “Company A” no longer ships product in bulk
• The driver must be in attendance when the vehicle is being filled or emptied	• “Company A” requires the driver to be in attendance during delivery.
• The delivery operator must determine the ullage (available capacity) of any tank that is to be filled to prevent overfilling.	• “Company A” provides the ullage to the driver when he/she arrives on-site.

5.0 AREAS WHERE FLAMMABLE LIQUIDS ARE USED/STORED

In locations where flammable liquids may be present:

- Precautions must be made to prevent or control ignition sources. Sources of ignition include open flames, lightning, smoking, cutting and welding, frictional heat, hot surfaces, heat, sparks (static, electrical, and mechanical), and other sources. “No Smoking” signs must be placed in conspicuous locations in areas where flammable liquids are handled.

- Natural or mechanical ventilation must be provided in areas where flammable liquids are handled. The ventilation system must discharge to a safe location, and at a rate of at least 1 cubic foot per minute per square foot of floor. “Company A” must ensure that all ventilation fans are running when in operation.

- When dispensing flammable liquids, the container and nozzle must be electronically interconnected.

- All automatic sprinkler systems, alarms, emergency lighting, fire doors, and other emergency equipment must be maintained in proper working condition.

- Fire extinguishers should be visually inspected monthly, maintained annually, and hydrostaticaly tested periodically.

- “Company A” must prevent the accumulation of flammable and combustible materials (e.g. paper and corrugated cardboard) which could cause the rapid spread of fire or create a toxic or thick smoke when burned.

- Class I Flammable liquids cannot be used within a building for cleaning or washing parts unless used in a closed machine approved for such a purpose or in a separately ventilated room constructed for that purpose.

6.0 EXITS

- All exits and aisle spaces leading to an exit must always be maintained free of all obstacles.

- Every Exit must be clearly marked.

- Exits must be of the side-hinged, swinging type and must swing with exit travel (out).

- Two exits, separated as far as possible, should be provided for each location within the building.

- Routes to exits should not be through high hazard areas.

- Exterior exits must be on solid smooth surfaces, have guardrails, be free of obstructions, and covered by a roof.

ANNEX 8

REGULATORY COMPLIANCE

AND

CROSS-REFERENCE MATRICES

ANNEX 8

CROSS REFERENCE MATRIX INTEGRATED CONTINGENCY PLAN "COMPANY A" COMPANY	
SECTION	**LOCATION IN ICP**
EPA's Oil Pollution Prevention Regulation – 40 CFR 112	
112 (b) – flow prediction	Annex 7
112 (c) – containment	Annex 7
112 (e) 1 – facility drainage	Annex 7
112 (e) 2 – bulk storage	Annex 7
112 (e) 3 – transfer of oil	Annex 7
112 (e) 8 – inspections and records	Annex 4
112 (e) 10 - training	Annex 5
OSHA's Emergency Action Plans and Process Safety – 29 CFR 1910.38 & .119	
1910.38 (a) Emergency Action Plan:	
(1) scope and applicability	Section I
(2) Elements:	
i. Escape routes & assignments	Annex 3.2
ii. Critical plant operations	N/A
iii. Employee accounting after evacuation	Annex 3.2
iv. Rescue & medical duties	Section II
v. Emergency reporting	Section II, Annex 2.1
vi. Names of internal response personnel	Section I.4.1
(3) Alarm systems	Annex 2
(4) Evacuation	Section II, Annex 3.2
(5) Training	Annex 5
1910.119 Process Safety Management	
(e)(3)ii. investigation of previous incidents	Annex 4
(e)(3)iii. Process hazard analysis	Annex 2, Annex 7
(g)(1)i. Employee training	Annex 5
(j)(4) Inspection/Testing	Annex 7

CROSS REFERENCE MATRIX INTEGRATED CONTINGENCY PLAN “COMPANY A” COMPANY	
(j)(5) Equipment repair	Annex 5
(l) Management of change	Annex 6
(m) Incident investigation	Annex 4
(n) Emergency planning and response	Section I, Section II
(o)(1) certification of compliance	Annex 8
1910.165 Employee alarm system	
(b) General Requirements	Annex 2.1
(b)(1) Purpose of alarm system	Annex 2.1
(b)(4) preferred means of reporting	Section II, Annex 2.1
(d) Maintenance and testing	Annex 7

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

GENERAL INFORMATION

1. Name of Facility: "Company A" Company

2. Type of Facility: Manufacture of architectural coatings

3. Location of Facility: 123 Industry Avenue Anytown, MA 02000

4. Name and Address of Owner or Operator:

   Name: *(name)*
   Address: *(home address)*

5. Designated person accountable for oil spill prevention at facility:

   Name: *(name)*
   Title: Emergency Coordinator

MANAGEMENT APPROVAL

This Integrated Contingency Plan will be implemented as herein described.

Signature:

Name:

Title:

CERTIFICATION

I hereby certify that I have examined the facility, and being familiar with the provisions of 40 CFR, Part 112, attest that this Integrated Contingency Plan has been prepared in accordance with good engineering practices.

_____
Printed/Typed Name of Registered
Professional Engineer

_____
Signature of Registered
Professional Engineer

(Seal)

Date: _____ Registration No. _____ State MA